

1/5

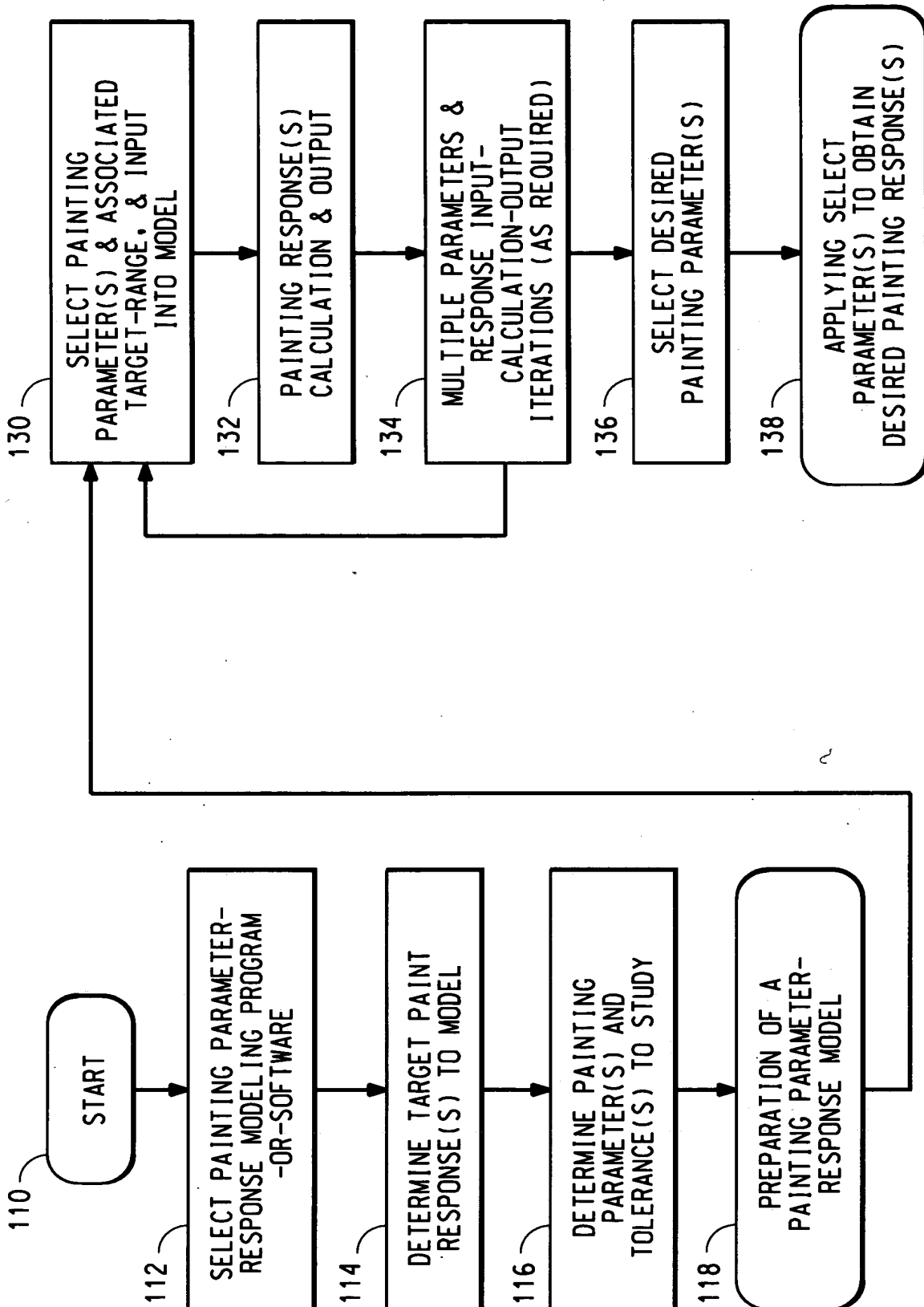


FIG. 1

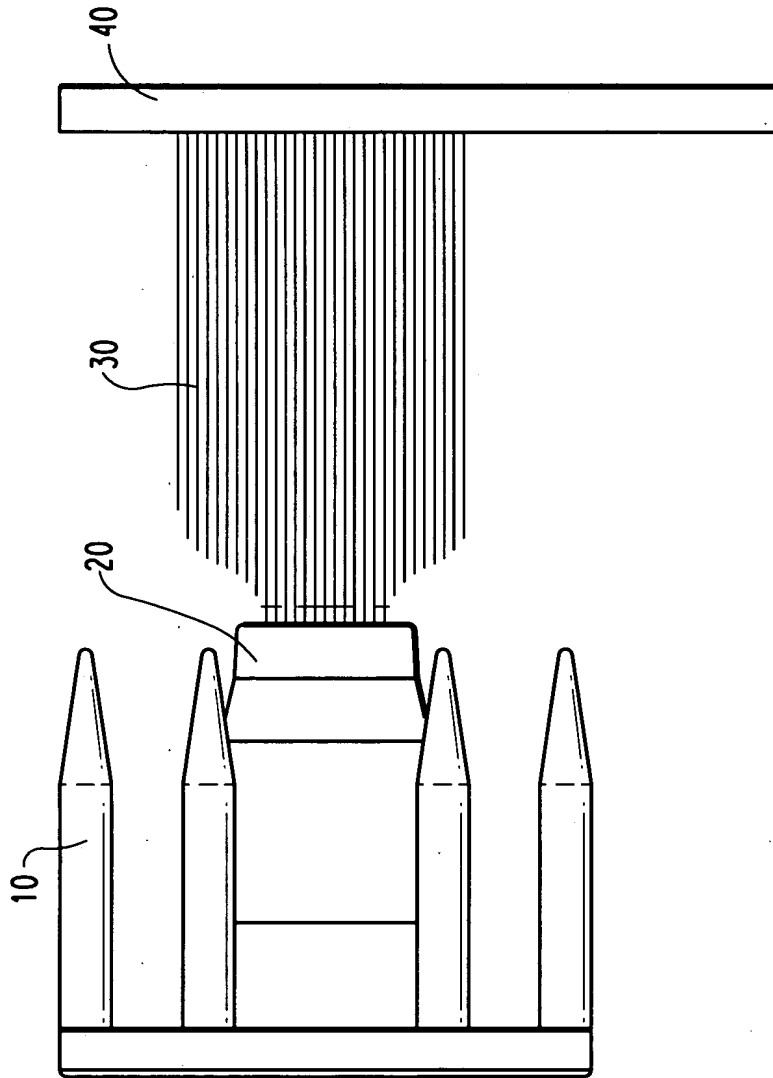


FIG. 2

3/5

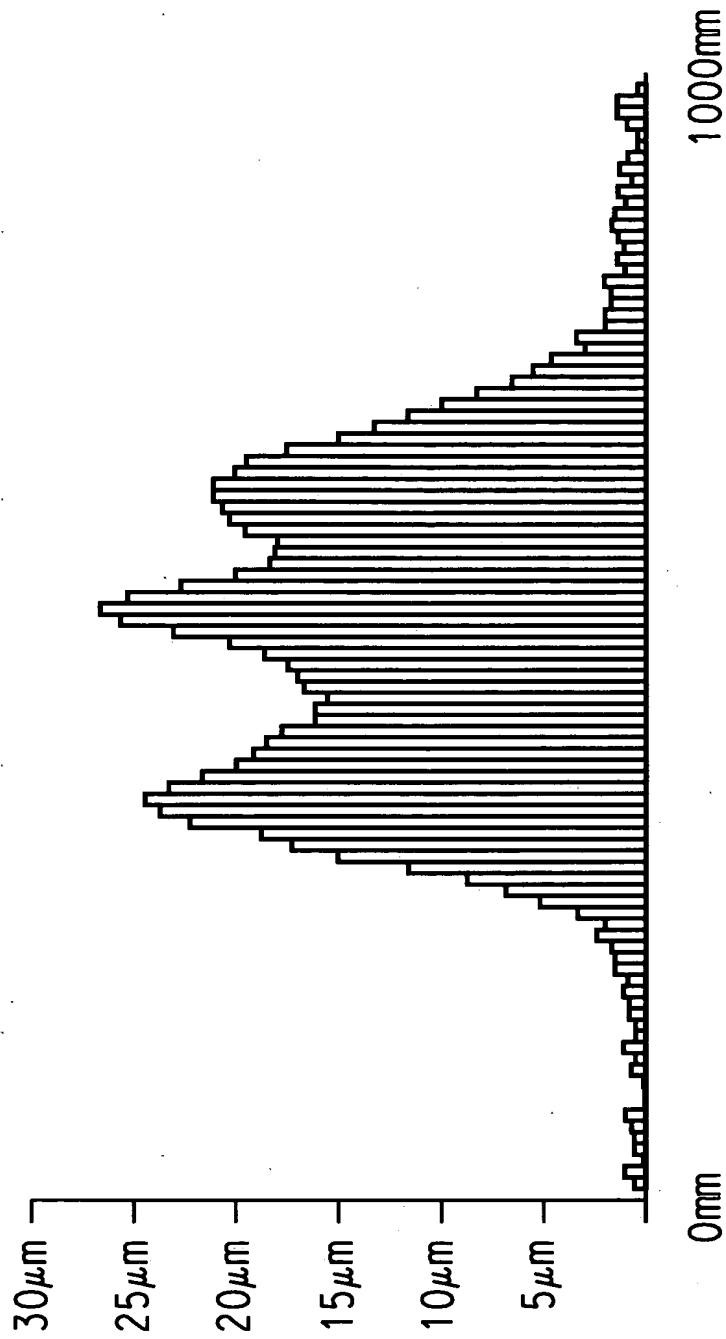


FIG. 3

4/5

172

174

BELL PATTERN DESIGN OF EXPERIMENT					
EQUIPMENT PARAMETER INPUTS				RESPONSE OUTPUTS	
Target Dist	Shaping Air	Fluid Rate	Turbine Speed	Pattern Dia	Film Build
8	160	95	45	24	5.5
12	160	95	45	26	3
10	160	115	45	25	5.5
8	240	115	45	21	5.5
10	320	115	45	17	10
8	240	95	40	14	5.75
10	240	75	50	21	3.75
8	320	95	45	18	6.5
10	320	95	50	17	4.5
12	240	95	40	20	4.25
12	240	115	45	26	4.25
10	160	95	40	23	3.75
10	320	75	45	16	4.5
12	240	75	45	24	3.5
10	240	75	40	17	4.1
10	320	95	40	16	6.3
10	240	95	45	22	4
10	240	95	45	22	4.5
10	160	75	45	22	3.25
8	240	75	45	21	4.75
10	160	95	50	26	3.75
8	240	95	50	21	5
10	240	115	50	22	4.25
10	240	115	40	22	4.5
12	240	95	50	24	3.5
10	240	95	45	22	4.5
12	320	95	45	19	4.5

170

FIG. 4

5/5

SPRAY PATTERN CALCULATOR FOR A CONVENTIONAL ROTARY BELL APPLICATOR									
PARAMETER INPUTS			RANGES			RESPONSE OUTPUTS			
Bell Speed		40	Krpm	25 - 60		Pattern Diameter		17.1	Inches
Shaping Air		340	SLPM	100 - 500		Film Build		32.1	Microns/pass
Fluid Rate		155	cc/min	100 - 400					
Applicator Speed		9.6	ft/min	n/a					
% Vol Solids		32	%						

FIG. 5